

What is claimed is:

1. A personal channel service providing method for outputting a television (TV) program preferred by a user, which is referred to as a preferred program, through a personal channel of a personal digital recorder (PDR) in a time duration preferred by the user, which is referred to as a preferred duration, the method comprising the steps of:

a) receiving content description data and instance description data of a program to be broadcasted through a TV network;

b) determining the preferred duration and the preferred program in the preferred duration based on usage history of the PDR, and updating the instance description data to include the preferred duration and the preferred program;

c) generating an electronic program guide (EPG) for informing the user that the preferred program is outputted on the personal channel in the preferred duration based on the updated instance description data; and

d) outputting the EPG to the PDR.

2. The method as recited in claim 1, wherein the step b) includes the steps of:

e) selecting the preferred duration, such as day and time, genre preferred in the preferred duration, which is referred to as a preferred genre, and a predetermined number of preferred program titles based on the usage history of the PDR,

and generating user preference data to include the preferred duration, the preferred genre, and the preferred program titles;

5 f) if the preferred duration is for watching a program stored in the PDR, extracting group information of a program title that belong to the preferred genre among the preferred program titles based on the content description data; and

10 g) determining a program following a most recently watched program among the programs that belong to the group as the preferred program in the preferred duration.

3. The method as recited in claim 2, wherein the preferred duration, such as day and time, is selected based on total duration of programs outputted by the PDR in a particular time duration.

20 4. The method as recited in claim 2, wherein a genre of a program that occupies the longest duration among the programs outputted by the PDR in the preferred duration is selected as the preferred genre.

25 5. The method as recited in claim 2, wherein the preferred program titles are selected based on the program duration outputted by the PDR, the EPG, and a frequency of program information exposure.

6. The method as recited in claim 1, wherein the step

b) includes the steps of:

h) selecting the preferred duration, such as day and time, preferred genre in the preferred duration, and a predetermined number of preferred program titles based on the usage history of the PDR, and generating user preference data to include the preferred duration, the preferred genre, and the preferred program titles;

i) if the preferred duration is for watching a program broadcasted in real-time, extracting a list of real-time broadcasting programs from the instance description data; and

j) determining a program that belongs to the preferred genre among the programs on the list as the preferred program in the preferred duration.

7. The method as recited in claim 6, wherein the preferred duration, such as day and time, is selected based on total duration of programs outputted by the PDR in a particular time duration.

8. The method as recited in claim 6, wherein a genre of a program that occupies the longest duration among the programs outputted by the PDR in the preferred duration is selected as the preferred genre.

9. The method as recited in claim 6, wherein the preferred program titles are selected based on the duration of programs outputted by the PDR, the EPG, and a frequency of

program information exposure.

10. A personal channel service providing apparatus for outputting a TV program preferred by a user, which is referred to as a preferred program, through a personal channel in a time duration preferred by the user, which is referred to as a preferred duration, the apparatus comprising:

a memory portion for storing a control program;

a database for storing instance description data, content description data, and user preference data based on usage history of the personal channel service providing apparatus;

a display portion for outputting an EPG; and

a processing portion for updating the instance description data based on the user preference data and generating an EPG which informs the user that the preferred program is outputted through the personal channel in the preferred duration based on the updated instance description data, the processing portion being connected to the memory portion, the database, and the display portion.

11. The apparatus as recited in claim 10, wherein the processing block further performs the steps of:

selecting the preferred duration, such as day and time, preferred genre in the preferred duration, and a predetermined number of preferred program titles based on the usage history of the personal channel service providing apparatus and

generating the user preference data to include the preferred duration, the preferred genre, and the preferred program titles;

5 if the preferred duration is for watching a program stored in the personal channel service providing apparatus, extracting group information of the program title that belongs to the preferred genre among the preferred program titles from the content description data; and

10 determining a program following a most recently watched program among the programs belonging to the group as the preferred program in the preferred duration.

12. The apparatus as recited in claim 11, wherein the preferred duration, such as day and time, is selected based on  
15 total duration of programs outputted by the personal channel service providing apparatus in a particular time duration.

13. The apparatus as recited in claim 11, wherein a genre of a program that occupies the longest duration among  
20 the programs outputted by the personal channel service providing apparatus in the preferred duration is selected as the preferred genre.

14. The apparatus as recited in claim 11, wherein the  
25 preferred program titles are selected based on program duration outputted by the personal channel service providing apparatus, the EPG, and a frequency of program information

exposure.

15. The apparatus as recited in claim 10, wherein the processing block further performs the steps of:

5 selecting the preferred duration, such as day and time, preferred genre in the preferred duration, and a predetermined number of preferred program titles based on the usage history of the personal channel service providing apparatus, and generating user preference data to include the preferred  
10 duration, the preferred genre, and the preferred program titles;

if the preferred duration is for watching a program broadcasted in real-time, extracting a list of real-time broadcasting programs from the instance description data; and

15 determining a program that belongs to the preferred genre among the programs in the list as the preferred program in the preferred duration.

16. The apparatus as recited in claim 15, wherein the  
20 preferred duration, such as day and time, are selected based on a total duration of programs outputted by the personal channel service providing apparatus in a particular time duration.

25 17. The apparatus as recited in claim 15, wherein a genre of a program that occupies the longest duration among the programs outputted by the personal channel service

providing apparatus in the preferred duration is selected as the preferred genre.

5        18.    The apparatus as recited in claim 15, wherein the preferred program titles are selected based on the duration of programs outputted by the personal channel service providing apparatus, the EPG, and a frequency of program information exposure.